quality of their lives. CONCLUSION: The results of the program evaluation supported the effectiveness of a retreat based supportive intervention for cancer patients and their caregivers. The retreat format would seem to capitalize on the synergy of support provided by professional care providers, family caregivers and the peer support component resulting from the extended group participation structure. Future investigations will be directed at evaluating the specific and synergistic contributions of these components.

P1-61

A Time to Heal: Effects of a Holistic Rehabilitation Program on Breast Cancer Survivors
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PURPOSE: To assess the impact of a structured, replicable, self-directed rehabilitation program on breast cancer survivors' QOL. METHODS: 5 groups of breast cancer survivors (N = 71) took the Brief Symptom Inventory-18 (BSI-18), the Functional Assessment of Cancer Treatment with Spirituality subscale (FACIT-Sp) and the Snyder Hope scale 3 months prior to treatment, beginning treatment, ending treatment and 6 months post treatment. Treatment consisted of 12 weekly 2 ½ hour groups. Weekly protocol included exercise, information, facilitated discussion, relaxation training, journaling and affirmations. Participants were asked to try all of the techniques and then contract with themselves to commit to one or more health enhancement behaviors. RESULTS: Participants made significant improvement on all three assessments compared to pre-treatment scores (BSI-18 t = 0.000***; FACIT-Sp t = 0.000***; Hope t = 0.000***). These results were maintained at 6 month follow-up. CONCLUSION: Survivors benefit from having access to survivorship training. They are successful maintaining health-behavior changes that they select for themselves. RESEARCH IMPLICATIONS: Self-selected rehabilitation can significantly improve QOL of cancer survivors. CLINICAL IMPLICATIONS: Survivors’ QOL may improve when they are allowed to select their own treatment after receiving relevant information and training.

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P1-62

Participation, Adherence and Compliance to Mindfulness-Based Stress Reduction Among Breast Cancer Survivors
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PURPOSE: To investigate participation, adherence and compliance to a 6-week mindfulness-based stress reduction (MBSR) program among women recently completing breast cancer treatment. These elements are critical to the overall outcomes. MBSR combines meditation and yoga to provide a standardized stress-reducing intervention and has been used to reduce physiological and psychological distress while assisting patient adaptation to illness. METHODS: This two-armed randomized wait-listed controlled study investigated MBSR among female breast cancer patients (stages 0-III) who completed lumpectomy, radiation and/or chemotherapy. Women completed self-report measures of psychological and physical symptoms and general health status before and after program participation. Interferon gamma and Interleukin-4 were also assessed. RESULTS: Participation Two hundred women were contacted, 116 declined and 82 completed the study. Reasons for declining include Schedule Conflict (38; 32.8%), Lives too Far (29; 25%), Not Interested (27; 23.3%), No Transportation (7; 6.0%), Inclusion Exclusion Criteria (7; 6.0%), Family Obligations (4; 3.4%) and Health Issues (4; 3.4%). Compliance to the 6-week program was excellent, 82 out of 84 enrolled participants (97.6%) completed the study. Eight-five percent of participants attended at least 75% of the classes. Class absences were due to family and work conflicts. Adherence showed that 97.5% of participants recorded MBSR practice in a daily diary. Mean minutes practiced for sitting meditation were 565(SD = 389); walking meditation 239(SD = 264); body scan 147(SD = 196); and yoga 143(SD = 189). Psychological and immune data will be analyzed using ANCOVA models to assess whether change varies by random assignment. CONCLUSION: Among breast cancer survivors, the 6-week MBSR program showed excellent participation, compliance and adherence to the 6-week MBSR program. RESEARCH IMPLICATIONS: If results show that MBSR improves patient proximal outcomes following completion of breast cancer treatment, future large-scale evaluation of MBSR as a potential therapy to reduce long-term morbidity and mortality should be explored. The use of MBSR to aid in breast cancer recovery requires formal evaluation in a randomized clinical trial, including mechanisms by which MBSR may operate. CLINICAL IMPLICATIONS: MBSR should be offered (if available) to breast cancer survivors in the
treatment needs of cancer survivors. Clinicians should help patients identify local programs with proven effectiveness, such as LiveWell!, to ease the post-treatment transition.

P2-55

Cognitive-Behavior Therapy, Perception of Somatic Symptoms and Physical Functioning in Women With Breast Cancer

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PURPOSE: The goal of this study was to evaluate the effect of CBT (as applied in the Simonon Program) on the subjective assessment of physical functioning and the perception of somatic symptoms in women treated for breast cancer. METHODS: The study involved 67 post-mastectomy women receiving chemotherapy. The experimental group (n = 35) participated in CBT. The control group consisted of women not participating in CBT. This longitudinal study involved two measurements: pre- and post 8 weeks of CBT with EORTC QLQ-30 and Self-Esteem Scale. RESULTS: The study showed an improvement in the QOL in the physical functioning subscale, as well as an increase in self-esteem in women in the intervention group, as compared with the control group. CBT had a positive impact on the change in the perception of somatic symptoms and on overall subjective perception of quality of life and physical condition. The correlation between participation in CBT and improvement in the overall perception of the following symptoms was observed: fatigue (p < 0.001), nausea and vomiting (p = 0.01), pain (p = 0.001), sleep disturbance (p = 0.001), loss of appetite (p < 0.05) and constipation (p = 0.05) in comparison with the control group. CONCLUSION: CBT may improve the quality of life and boost the self-esteem in women with breast cancer. CBT leads to decrease of the perceived symptom intensity. RESEARCH IMPLICATIONS: More research is needed on the effects of CBT on the perception of the somatic symptoms. CLINICAL IMPLICATIONS: CBT is a valuable modality, complementing standard cancer treatment.

P2-56

The Effects of Expressive Writing on Physical and Mental Functioning in Cancer Patient Survivors

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PURPOSE: The literature suggests that emotional disclosure through expressive writing has significant mental and physical health benefits for patients with medical and/or psychiatric illness. A substantial subgroup of cancer survivors report persistent insomnia, fatigue and elevated mood symptoms even years after completion of initial cancer treatment. There have only been a few studies which have assessed the benefits of written emotional disclosure in cancer survivors. While still somewhat preliminary, results suggest various mental and physical health benefits of expressing thoughts and feelings in this group. We hypothesize that cancer survivors who participate in an expressive writing series will report decreased symptoms of fatigue, insomnia, depression and anxiety; while showing improvements in quality of life and mindfulness. The mindfulness component will measure patients' awareness of present events and experience. METHODS: Eighteen cancer survivors from the Moores UCSD Cancer Center and the San Diego community who have completed initial treatment for cancer within the last five years will participate in an eight-week facilitated expressive writing intervention. Using a pre/post design, the assessment will consist of: Pittsburgh Sleep Quality Index (PSQI), Functional Assessment of Cancer Therapy-General (FACT-G), Functional Assessment of Cancer Therapy-Anemia (Fact-An), Mindfulness Attention Awareness Scale (MAAS) and the Hospital Anxiety and Depression Scale (HADS). RESULTS: SPSS 15.0 paired t-tests will be used as the main analytic strategy, using the Least Significant Difference correction to control for Type I error. Results will be presented at the conference. CONCLUSION: Emotional disclosure via expressive writing has been shown to have positive physical and mental health benefits in medical and psychiatric patients, although results in cancer survivors are still preliminary. We propose to demonstrate improved sleep, physical functioning and mindfulness as well as decreased fatigue, anxiety and depression in cancer survivors after an eight-week facilitated expressive writing intervention. RESEARCH IMPLICATIONS: Findings will contribute to the emerging literature on the effects of expressive writing in cancer survivors. CLINICAL IMPLICATIONS: Findings are expected to support expressive writing as a relatively inexpensive, well-tolerated, group-based intervention for improving physical and mental aspects of quality of life in cancer survivors.

P2-57

Mindfulness-Based Stress Reduction: Research Synthesis and State of the Science

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PURPOSE: To describe the state of the science of Mindfulness-Based Stress Reduction (MBSR)
through a research synthesis of published research on the use of MBSR among patients with cancer and other health conditions. MBSR provides a stress reduction intervention that combines meditation and yoga and has been used to reduce physiological and psychological symptoms while assisting patients to adapt to their illness. METHODS: Multiple databases were utilized to review research from 1982-2007. Databases included OVID, PsychINFO and PubMed. MBSR and meditation were used as key search terms. Inclusion criteria: (1) research studies published prior to February 2007. Empirical studies, RCT's, descriptive, or quasi-experimental research, and case studies, (2) use of MBSR as the intervention according to standardized training format (meditation program, daily practice, group format, quantitative outcome measures, length 6-12 weeks, and 1.5-3 hour weekly sessions, and (3) research published in English. Exclusion criteria: (1) Anecdotal notes, (2) Studies in other languages, (3) Abstract only articles, and (4) Dissertations. RESULTS: Two hundred eighty-one studies were identified with the inclusion and exclusion criteria and 47 were reviewed. Beginning of the Science (1982-1995): 8 studies were published that were pre-test, post-test, quasi experimental designs with no control groups. Advancing the Science (1997-2007): 16 randomized studies (4 studies among cancer patients and 12 with non-cancer patients); 24 non-randomized studies (7 among cancer patients and 17 non-cancer). CONCLUSION: Although studies report the effectiveness of MBSR in reducing chronic pain, depression, anxiety, affecting mood and increasing quality of life, their generalizability to patient populations is questionable due to few randomized research designs. Moreover, preliminary evidence indicates patient improvements were sustained for up to 4 years. RESEARCH IMPLICATIONS: Limitations of the studies include poor research designs, variability among instruments used to assess similar outcomes and variability of time related to delivery of the intervention. Use of MBSR should be considered to aid in recovery of cancer survivors and requires formal evaluation in more randomized clinical trials, including mechanisms by which MBSR may operate. CLINICAL IMPLICATIONS: MBSR programs should be offered (if available) to cancer patients, survivors and caregivers to aid in managing symptoms associated with treatment and recovery.

P2-58

Pain in Cancer Survivors
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PURPOSE: The purpose of this study is to identify the prevalence and characteristics of pain in adult cancer survivors with different types of cancer, stages of disease at initial diagnosis and time segments following treatment completion. We will also compare health-related quality of life and psychological distress in adult cancer survivors with and without pain, explore the extent to which pain among cancer survivors is associated with their health-related quality of life and examine whether or not cancer survivors with pain will have significantly higher levels of psychological distress than cancer survivors without pain. METHODS: In this single arm cross-sectional study, we will identify the prevalence and characteristics of pain in a random sample of 600 adult cancer survivors recruited from 5 different services within our institution including Breast, Colorectal, Genitourinary, Head and Neck and Thoracic. Eligible participants will have undergone cancer treatment at our institution, have completed their treatment between 1 and 10 years from the time of study recruitment and have no evidence of disease upon enrollment. Participation includes completing a telephone interview or self-report survey on pain. Patients are administered an assessment battery asking questions pertaining to their mood, health behaviors, any pain experience and their overall quality of life. Survivors will be then screened for the presence of pain; those who answer the criterion question in the affirmative will complete a structured pain interview. Control group participants who do not report pain will undergo all aspects of the study evaluation with the exception of the pain interview. A brief written report of pain and psychosocial assessment findings will be forwarded to the patient’s primary oncologist upon the participant’s request. RESULTS: While at this time we cannot report any results, this study is now open for accrual, and we expect having approximately 50 patients complete the study by the time of the conference. CONCLUSION: Based on routine clinical follow-up assessments in our institution’s survivorship clinics we anticipate that the pain prevalence rate for the study will be 47.5%. RESEARCH IMPLICATIONS: The current study will guide the development of an assessment battery and sampling strategy for a second study in a national sample of cancer survivors. A third study will involve a future pain control intervention trial in cancer survivors. CLINICAL IMPLICATIONS: Growing evidence indicates that persistent pain frequently occurs after curative treatment for cancer. We will use the data from this descriptive study for a series of epidemiologic and intervention studies in this new area of pain clinical research.